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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,419	06/21/2001	Johan Scott	876.0003USU	7642

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EXAMINER	
PESIN, BORIS M	

ART UNIT	PAPER NUMBER
2174	

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/886,419	SCOTT, JOHAN	
	Examiner	Art Unit	
	Boris Pesin	2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8 and 10-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 10-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

AT

DETAILED ACTION

Response to Amendment

This communication is responsive to the amendment filed 07/11/2005.

Claims 1-8 and 10-43 are pending in this application. Claims 1, 22, 23, 27, 28, and 29 are independent claims. In the amendment filed 07/11/2005, Claims 1, 22, 23, 27, 28, and 29 were amended. This action is made Non-Final.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The Office notes that applicant did not contest any of the factual assertions set forth under Official Notice of the Office Action of 04/26/2005.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2, 3, 5, 6, 7, 8, 14, 15, 17, 18, 19, 22, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishiumi et al. (US 6239806) in view of Lipps et al. (US 5860861).

In regards to claim 1, Nishiumi teaches a method of selecting an object by controlling movement of a focus on a graphical display comprising receiving a signal for moving the focus in a given direction (i.e. "Thus, the connection of the controller 40 to the connector 181-184 places the controller 40 into electric connection with the image processing apparatus 10, enabling transmission and reception of data there between." Column 4, Line 20); providing, in response to receiving said signal, predefined acceleration data for accelerating said focus in said given direction (i.e. "In the acceleration process at the step S307, a predetermined acceleration A is added to the actual moving speed S1 in the previous frame according to Equation (4)." Column 11, Line 2); determining a position of the focus on the graphical display as a function of said acceleration data (i.e. "In the acceleration process at the step S307, a predetermined acceleration A is added to the actual moving speed S1 in the previous frame according to Equation (4)." Column 11, Line 2); and displaying the focus at said position (i.e. Figure 14, Element S310). Nishiumi does not teach receiving a signal from a dual-state button having a single depressed state, for moving the focus in a given direction. Lipps teaches, "four directional control push-buttons and a number of non-directional push-buttons. The push-buttons are dual state (on/off) buttons. Each

directional button, when pressed by the operator, causes a corresponding directional action of the character in the video game such as turning the character to the right or left." (Column 28, Line 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nishiumi with the teachings of Lipps and include a dual state button for moving the focus with the motivation to provide the user with a simpler and more accurate way of moving the focus in the cardinal directions.

In regards to claim 2, Nishiumi teaches a method further comprising determining an acceleration of the focus as a function of the acceleration data (i.e. "In the acceleration process at the step S307, a predetermined acceleration A is added to the actual moving speed S1 in the previous frame according to Equation (4)." Column 11, Line 2).

In regards to claim 3, Nishiumi teaches a method further comprising determining a velocity of the focus in dependence upon the acceleration (i.e. "S=S1+A" Column 11, Line 8).

In regards to claim 5, Nishiumi defines a metric system. (i.e. Column 11, Line 19)

In regards to claim 6, Nishiumi teaches a method, further comprising updating the acceleration using some or all of the acceleration data (i.e. "A=1.1-S1/43.0' Column 11, Line 9), updating a velocity and position of the focus and displaying the focus at the updated position (i.e. Figure 14, Elements S309 and S310).

In regards to claim 7, Nishiumi teaches a method further comprising determining whether the velocity of the focus exceeds a predefined maximum (Figure 14, Element S306).

In regards to claim 8, Nishiumi teaches a method, further comprising limiting the velocity of the focus if it exceeds s a predefined maximum (i.e. Figure 14, Element S308).

In regards to claim 14, Nishiumi teaches a method wherein the focus is a pointer (i.e. "The cross switch 403 is a direction switch for designating the direction of movement of a player controlled heroic character or a cursor, which has upper, lower, left and right depression points used for designating movement in four directions." Column 6, Line 18).

In regards to claim 15, Nishiumi teaches a method wherein the focus is a part of a page content (i.e. "The cross switch 403 is a direction switch for designating the direction of movement of a player controlled heroic character or a cursor, which has upper, lower, left and right depression points used for designating movement in four directions." Column 6, Line 18).

In regards to claim 17, Nishiumi teaches an electronic apparatus configured to carry out the method according to claim 1 (Figure 1).

In regards to claim 18, Nishiumi teaches a data processing apparatus configured to carry out the method according to claim 1 (Figure 1).

In regards to claim 19, Nishiumi teaches a multimedia home product apparatus configured to carry out the method according to claim 1 (Figure 1).

Claim 22 is in the same context as claim 1; therefore it is rejected under similar rationale.

Claim 29 is in the same context as claim 1; therefore it is rejected under similar rational.

In regards to claim 30, Nishiumi teaches a method wherein providing predefined acceleration data for accelerating said focus in said given direction comprises adding at least one data value to a buffer of acceleration data values (i.e. "A=1.1-S1/43.0' Column 11, Line 9).

In regards to claim 31, Nishiumi teaches a method wherein providing predefined acceleration data for accelerating said focus in said given direction comprises updating a buffer of acceleration data values (i.e. "A=1.1-S1/43.0' Column 11, Line 9).

In regards to claim 32, Nishiumi teaches a method comprising reading out a data value at a front of said buffer and calculating a velocity and a position of said focus using said data value (i.e. "S=S1+A" Column 11, Line 8 and Figure 14, Element S311).

In regards to claim 33, Nishiumi teaches a method wherein said buffer is updated whenever a signal from said dual-state button is received (Figure 14).

In regards to claim 34, Nishiumi teaches a method wherein reading said data value and calculating said velocity and said position is repeated every time a frame on said display is updated (i.e. "The reason for determining in Equation (5) the acceleration A based on the speed S1 in the previous frame is to avoid abrupt changes of speed." Column 11, Line 22).

In regards to claim 35, Nishiumi teaches a method wherein acceleration data is in the form of impulse data (i.e. Figure 14, Element S302).

In regards to claim 36, Nishiumi teaches a method wherein determining the position of the focus on the graphical display includes calculating the velocity (i.e. "S=S1+A" Column 11, Line 8 and Figure 14, Element S311).

In regards to claim 37, Nishiumi teaches a method wherein calculating said velocity comprises adjusting said velocity for friction so as to reduce said velocity (i.e. Figure 14, Element S308).

In regards to claim 38, Nishiumi teaches a method wherein said input device further comprises a second dual-state button for moving the focus in another, different direction (Figure 8, Element 403) and wherein the method further comprises: receiving another signal from said dual-state button (i.e. "Thus, the connection of the controller 40 to the connector 181-184 places the controller 40 into electric connection with the image processing apparatus 10, enabling transmission and reception of data there between." Column 4, Line 20); providing, in response to receiving said other signal, other predefined acceleration data for accelerating said focus in said other, different given direction (i.e. "In the acceleration process at the step S307, a predetermined acceleration A is added to the actual moving speed S1 in the previous frame according to Equation (4)." Column 11, Line 2); determining a position of the focus on the graphical display as a function of said acceleration data (i.e. "In the acceleration process at the step S307, a predetermined acceleration A is added to the actual moving speed S1 in the previous frame according to Equation (4)." Column 11, Line 2)

In regards to claim 39, Nishiumi teaches a method wherein providing predefined acceleration data for accelerating said focus in said other given direction comprises adding at least one data value to another, different buffer of acceleration data values (i.e. "A=1.1-S1/43.0' Column 11, Line 9).

Claims 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bird et al. (US 6323884) in view of Lipps et al. (US 5860861).

In regards to claim 23, Bird discloses a method of selecting one of a plurality of objects on a graphical display using a focus, the method comprising receiving a signal to move the focus (i.e. "pointer position listener", Column 5, Line 2), determining a direction of motion of the focus (i.e. "predict intended destination", Column 2, Line 6), determining in dependence upon said direction of motion which of one plurality of objects is the intended destination of the focus (i.e. "automatically moving the pointer to that destination", Column 2, Line 7) and highlighting one object for selection (i.e. "adds emphasis such as a highlight colour or animation of the selected button", Column 3, Line 16). Bird does not teach receiving a signal from a dual-state button having a single depressed state. Lipps teaches, "four directional control push-buttons and a number of non-directional push-buttons. The push-buttons are dual state (on/off) buttons. Each directional button, when pressed by the operator, causes a corresponding directional action of the character in the video game such as turning the character to the right or left." (Column 28, Line 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Bird with the teachings

of Lipps and include a dual state button for moving the focus with the motivation to provide the user with a simpler and more accurate way of moving the focus in the cardinal directions.

In regards to claim 24, Bird discloses a method wherein the determining of which one of said plurality of objects is the intended destination comprises determining which of said objects is closest to the focus (i.e. "...nearest selectable GUI element to the user-indicated position will typically be identified in the prediction result", Column 9, Line 9).

In regards to claim 25, Bird discloses a method wherein the determining of which one of said plurality of objects is the intended destination comprises determining which of said objects substantially lies in the path of the direction of motion (i.e. "In an alternative embodiment which determines a region of the GUI towards which the user is moving a pointing device based on the initial position and direction", Column 9, Line 24).

In regards to claim 26, Bird discloses a method wherein the determining of which one of said plurality of objects is the intended destination further comprises defining a metrics system (i.e. formula, Column 6, Line 20).

Claim 27 is in the same context as claim 23; therefore it is rejected under similar rationale.

Claims 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishiumi et al. (US 6239806) in view of Lipps et al. (US 5860861).

In regards to claim 16, Nishiumi and Lipps do not teach a method according to claim 1 wherein the focus is a window. However; official notice is given that it is well know in the art to implement a method according to claim 1, wherein the focus is a window. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nishiumi and Lipps and include a method wherein the focus is a window with the motivation to provide more data on the screen simultaneously.

In regards to claim 20, Nishiumi and Lipps do not teach a personal computer apparatus configured to carry out the method according to claim 1. However, official notice is given that it is well know to have a personal computer apparatus configured to carry out the method according to claim 1. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nishiumi and Lipps and have a personal computer configured to carry out the method of claim 1 with the motivation to provide more processing power and faster access times.

Claims 4, 28, 40, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishiumi et al. (US 6239806) in view of Lipps et al. (US 5860861) further in view of Bird et al. (US 6323884).

In regards to claim 4, Nishiumi and Lipps teach all the limitations of claim 1. Nishiumi and Lipps do not teach a method comprising determining in dependence upon the direction of motion of focus whether an object is the intended destination of the focus and highlighting object for selection. Bird teaches a "... heuristic to predict the intended destination of a user-controlled mouse pointer movement and then

automatically moving the pointer to that destination."(Column 2, Line 6). He further teaches that his invention "adds emphasis such as a highlight colour or animation of the selected button"(Column 3, Line 16). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nishiumi and Lipps with the teachings in Bird and include a predicting where the pointer's destination is, and then highlighting that object with the motivation to provide for easier selection of items within a GUI environment.

In regards to claim 28, Nishiumi and Lipps teach, as per claim 1, a method of selecting an object by controlling movement of a focus on a graphical display using an input device having a dual-state button for moving the focus in a given direction, the method comprising: receiving a signal from said dual-state button; providing, in response to receiving said signal, predefined acceleration data for accelerating said cursor in said given direction; determining a position of the focus on the graphical display as a function of said acceleration data; and displaying the focus at said position. Bird teaches "... heuristic to predict the intended destination of a user-controlled mouse pointer movement and then automatically moving the pointer to that destination."(Column 2, Line 6). He further teaches that his invention "adds emphasis such as a highlight colour or animation of the selected button"(Column 3, Line 16). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nishiumi and Lipps with the teachings in Bird and include a predicting where the pointer's destination is, and then highlighting that object with the motivation to provide for easier selection of items within a GUI environment.

In regards to claim 40, Nishiumi and Lipps teach all the limitations of claim 1. They do not teach determining a distance between the focus and the object as a radius using a coordinate system that is rotated and compressed in a direction of movement of said focus; and if said object has the smallest determined radius, marking said object as a selected object. Bird teaches "... heuristic to predict the intended destination of a user-controlled mouse pointer movement and then automatically moving the pointer to that destination."(Column 2, Line 6). He further teaches that his invention "adds emphasis such as a highlight colour or animation of the selected button"(Column 3, Line 16). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nishiumi and Lipps with the teachings in Bird and include a predicting where the pointer's destination is, and then highlighting that object with the motivation to provide for easier selection of items within a GUI environment.

In regards to claim 41, Nishiumi, Lipps, and Bird teach all the limitations of claim 40. Nishiumi does not specifically teach rotating the coordinate system so that it becomes aligned with the direction of said velocity. However this feature is inherent in Nishiumi. If a user was to play a three dimensional game using Nishiumi's invention, the screen would rotate according to the direction of the velocity of the user.

Claims 10, 11, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishiumi et al. (US 6239806) in view of Lipps et al. (US 5860861) in view of Yamada (US 5874941).

In regards to claim 10, Nishiumi and Lipps teach all the limitations of claim 1. Nishiumi and Lipps do not teach the method of adding a first set of acceleration data to a second set of acceleration data. Yamada teaches a method for "adding the first and second cursor moving values [acceleration] to first and second cursor values corresponding to the position of the cursor displayed at present."(Column 3, Line 12). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nishiumi and Lipps with the teachings of Yamada to include a way to add sets of acceleration data together with the motivation to provide for efficient movement in response to a user movement of the mouse.

In regards to claim 11, Yamada teaches "the acceleration signal is controlled to be zero [i.e. predefined] when the pointer is stopped" (Column 8, Line 52).

In regards to claim 12, Nishiumi, Lipps and Yamada teach all the limitations of claim 10. They do not teach a method where determining the velocity comprises adding a first member of the acceleration data to a previously determined velocity. Official notice is given that velocity as a function of time is well known in the art as: $v = v_0 + a\,t$ where v_0 is the initial velocity (at t = 0), v is the velocity of the object at time t and a is the acceleration. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the function in order to calculate the velocity with the motivation to provide for efficient movement in response to a user movement of the mouse.

In regards to claim 13, Yamada teaches "the acceleration signal is controlled to be zero [i.e. predefined] when the pointer is stopped" (Column 8, Line 52).

Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishiumi et al. (US 6239806) in view of Lipps et al. (US 5860861) in view of Bird et al. (US 6323884) and further in view of Rutledge et al. (US 5764219).

In regards to claim 42, Nishiumi, Lipps, and Bird teach all the limitations of claim 41. They do not teach a method further comprising compressing said coordinate system in direction of said velocity by a compression factor $k/(|v| + 1)$, where $|v|$ is the speed of the focus and the k is the scaling constant. Rutledge teaches, "The coordinate of this graph is cursor velocity, the abscissa is force, in percent of the corresponding scale factors. The velocity scale factor (multiplier of v in the above formulas) is 1500 pixels/second, or on a screen, 66 cm/second." Column 3, Line 23). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nishiumi, Lipps and Bird with the teachings of Rutledge and include a method of changing the coordinate system with the motivation to provide for a convenient method of reducing image size and providing improved control of a pointing device.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nishiumi et al. (US 6239806) in view of Lipps et al. (US 5860861) further in view of Ghisler (US 5953657). They do not teach a mobile telephone handset configured to carry out the method according to claim 1. Ghisler teaches, "The display 1100 is a liquid crystal display showing alphanumeric text 1101-1104 and a two-arrow cursor 1105. The cursor control 1108 allows cursor movements or scrolling up and down in the text." Column 15,

Line 63, this is implemented on a handheld telephone). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nishiumi and Lipps with the teachings of Ghisler and include a mobile telephone handset carry out the method according to claim 1 with the motivation to provide more portability to the user.

Claims 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bird et al. (US 6323884) in view of Lipps et al. (US 5860861) further in view of Osga (US 5757358).

In regards to claim 43, Bird and Lipps teach all the limitations of claim 23. They do not teach a method further comprising moving said focus to a new position, displaying said focus at aid new position and highlighting said one object for selection without moving said focus to said object. Osga teaches, "Once an operator has placed his cursor in the area closest to an object he will at once be notified of this as the object will become visually identified as being "selectable." A selection confirmation action by the computer-user, such as the pressing of a mouse button, would select the "selectable" object. This action would be made known to the computer-user as the object will become visually identified as being "selected"." (Column 3, Line 10). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Bird and Lipps with the teachings of Osga and include a method to select an object without actually having the pointer placed on top of the object with the motivation to provide the user with a substantial increase in cursor placement tasks.

Response to Arguments

Applicant's arguments with respect to claims 1-8 and 10-43 have been considered but are moot in view of the new ground(s) of rejection.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Boris Pesin whose telephone number is (571) 272-4070. The examiner can normally be reached on Monday-Friday except every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on (571) 272-4063. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BP

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